

FIG. 1

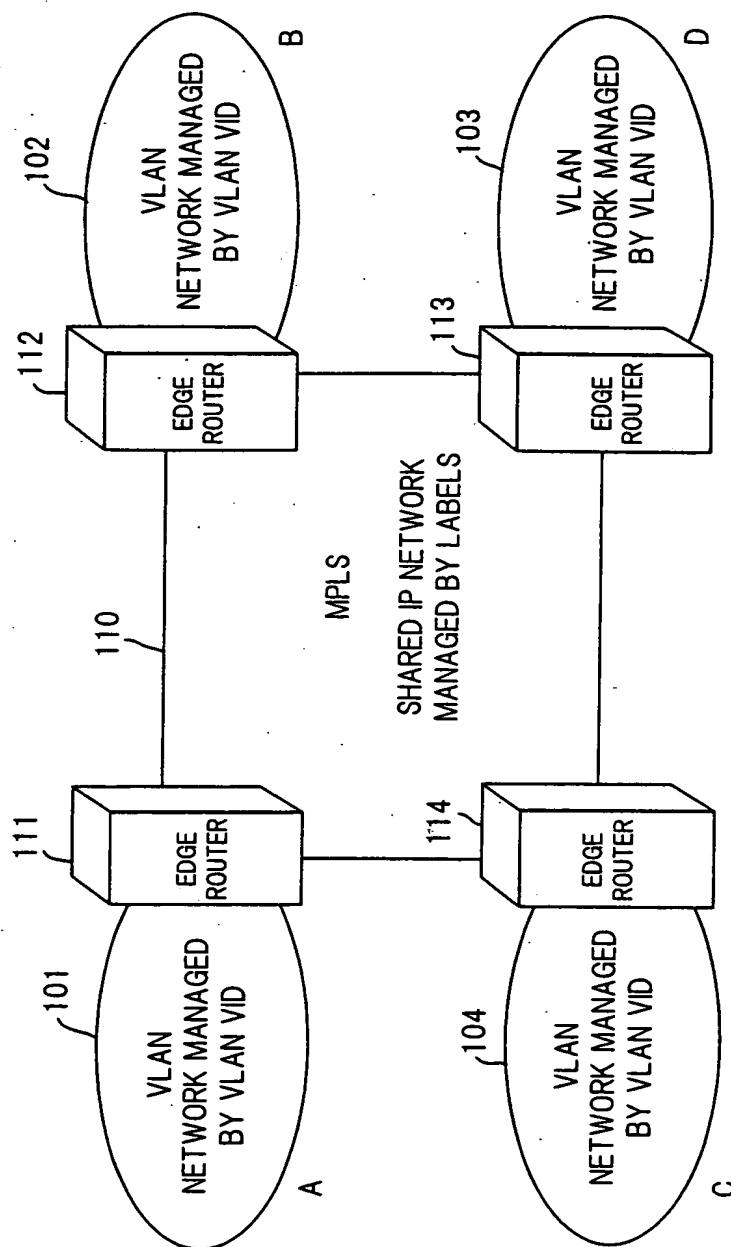


FIG. 2

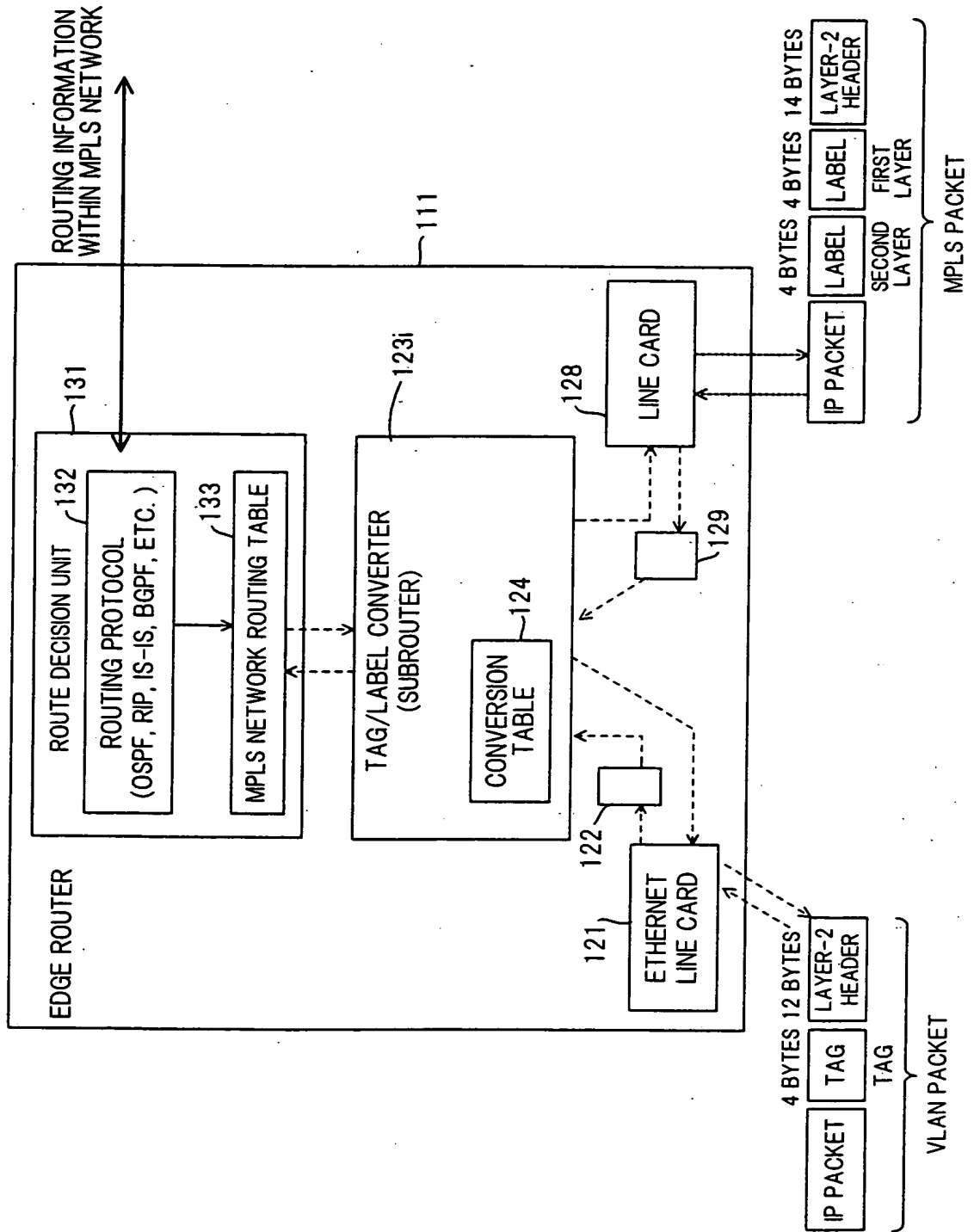


FIG. 3

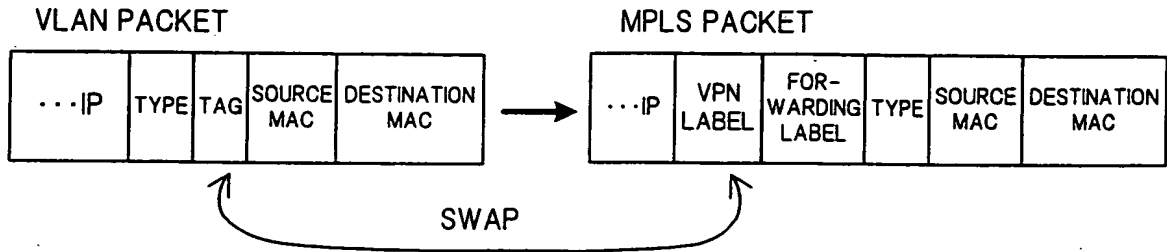


FIG. 4

VLAN ID (VID)	VPN LABEL
N	M
N+1	M+1
.	.
.	.
.	.
N'	M'

FIG. 5

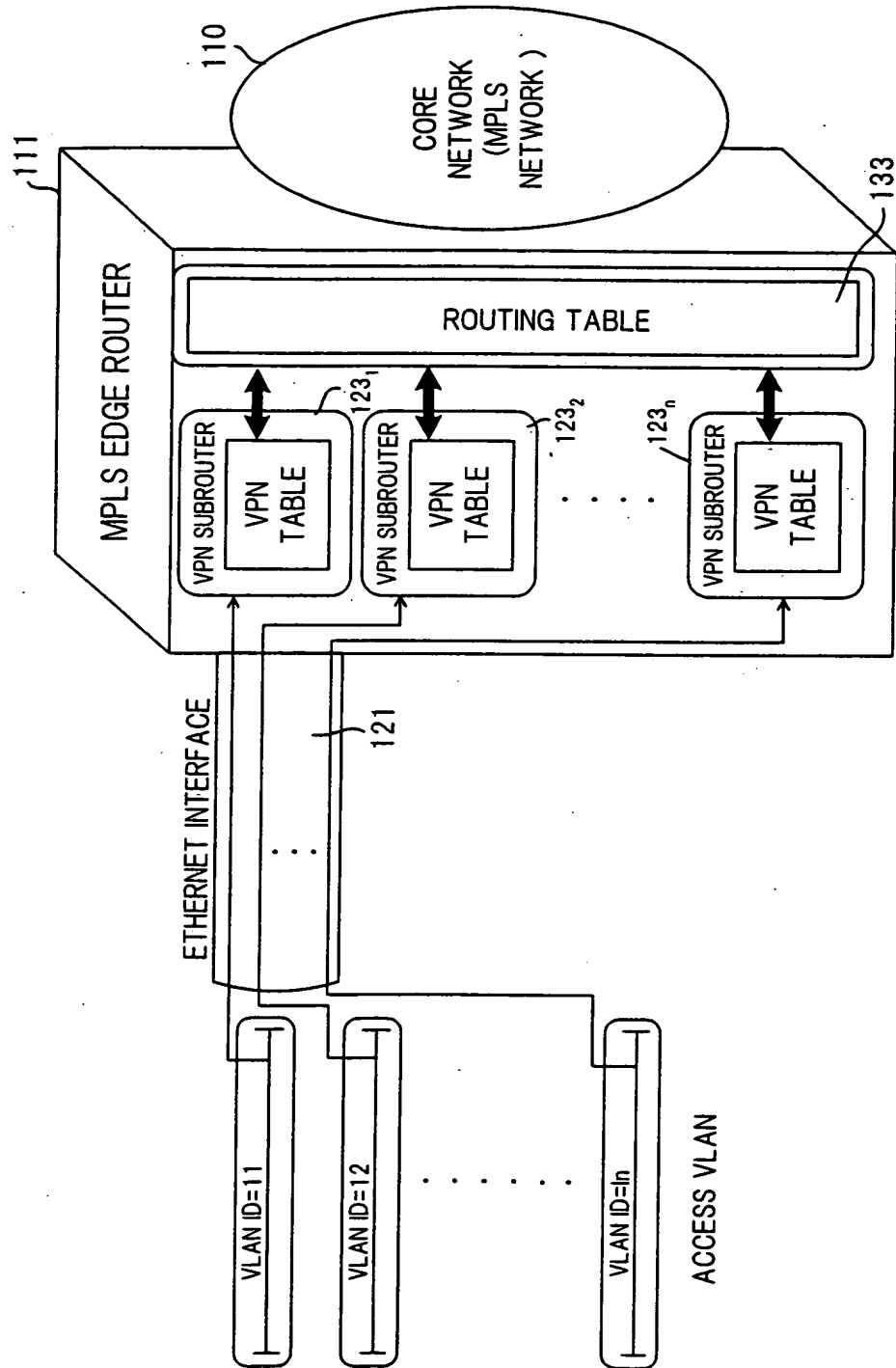


FIG. 6

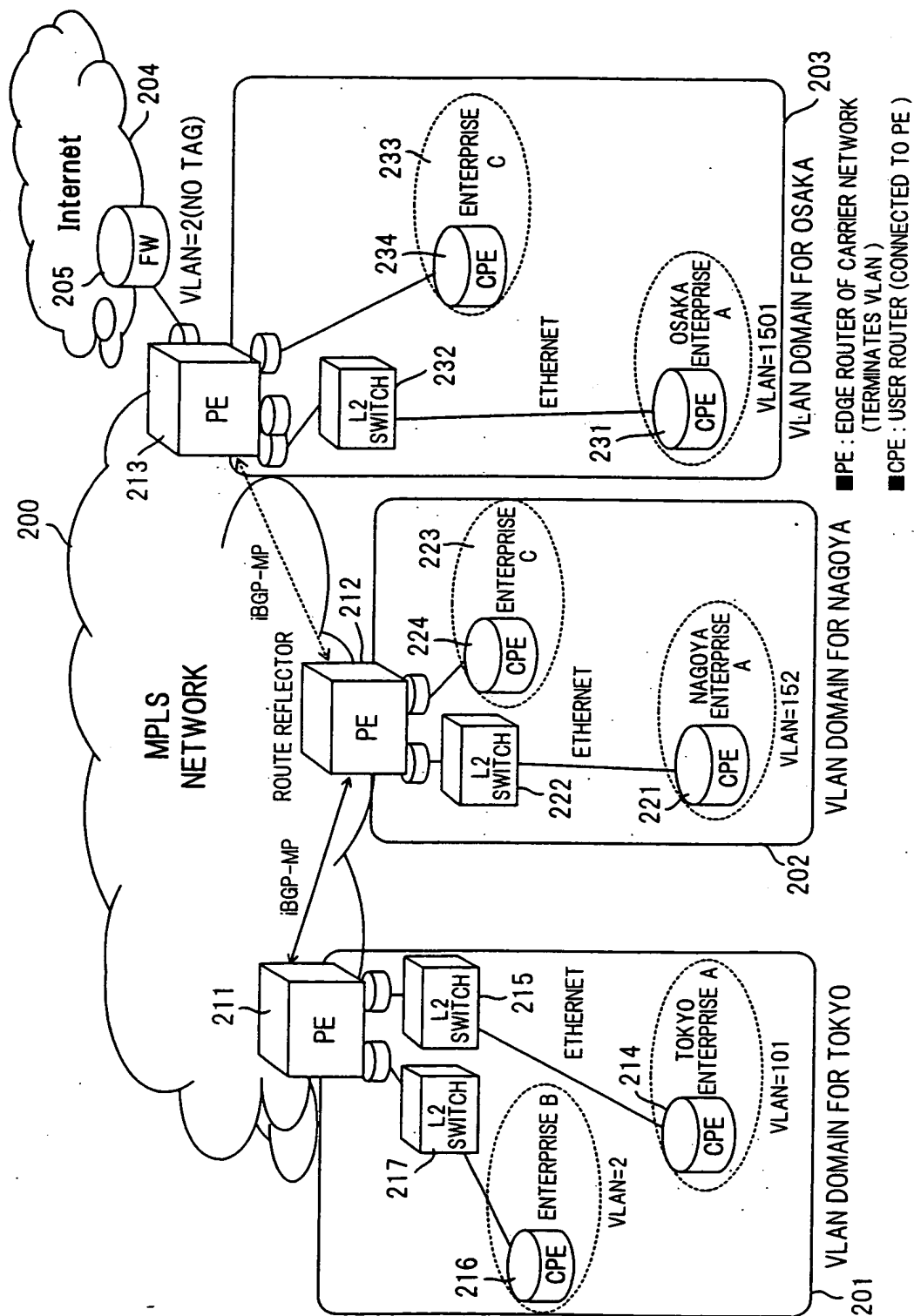


FIG. 7A

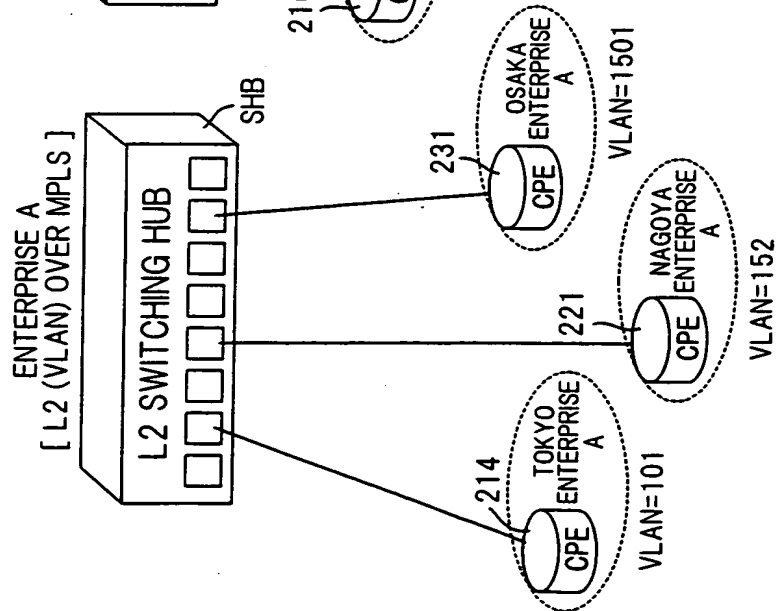


FIG. 7B

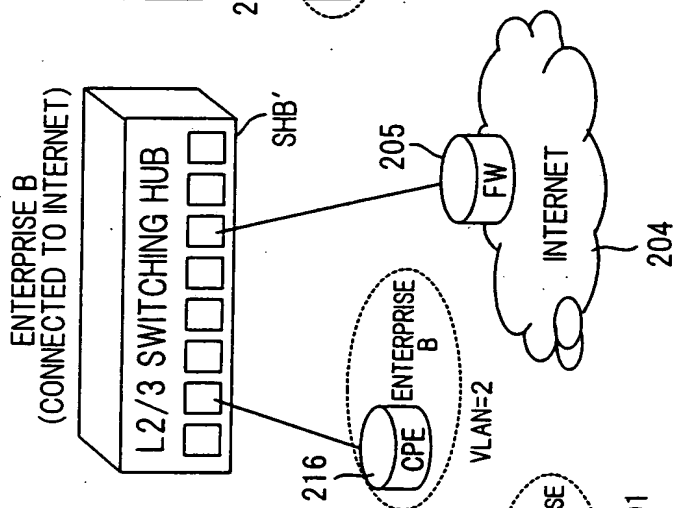


FIG. 7C

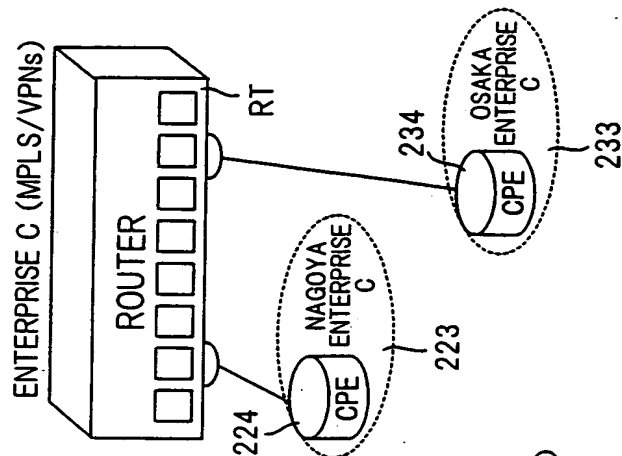


FIG. 8

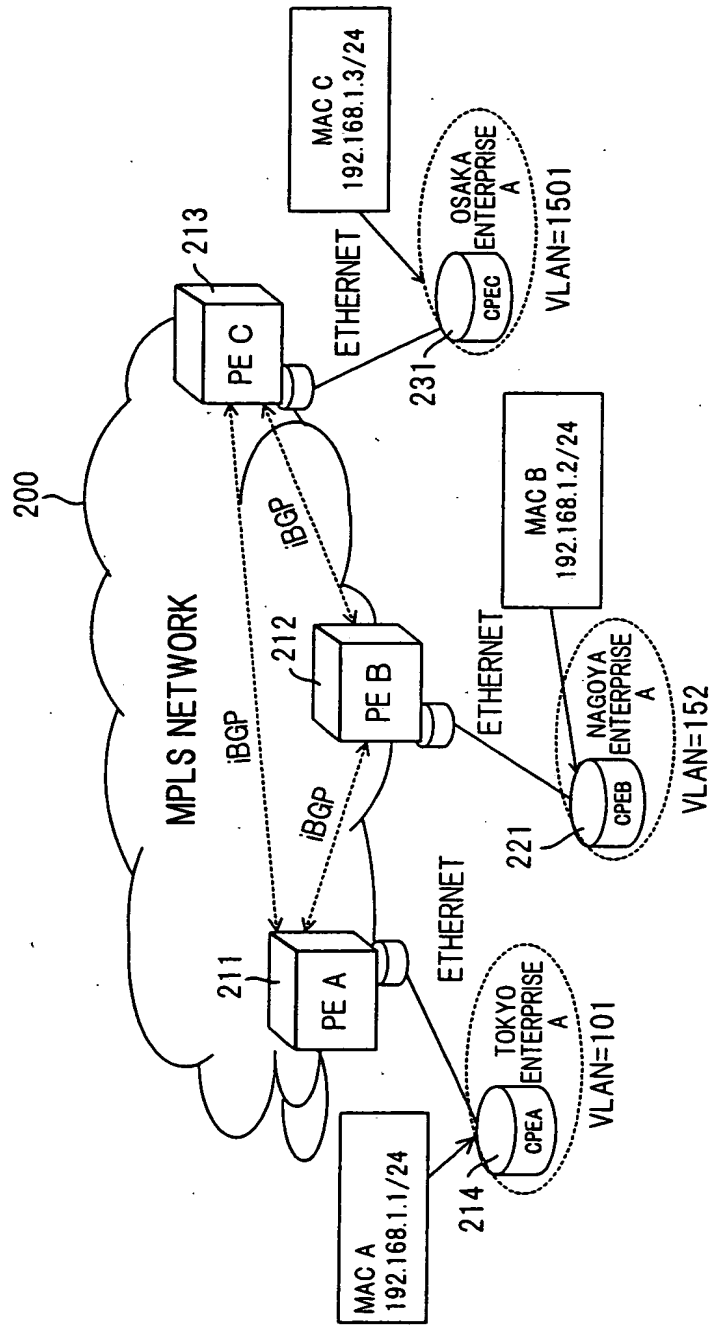
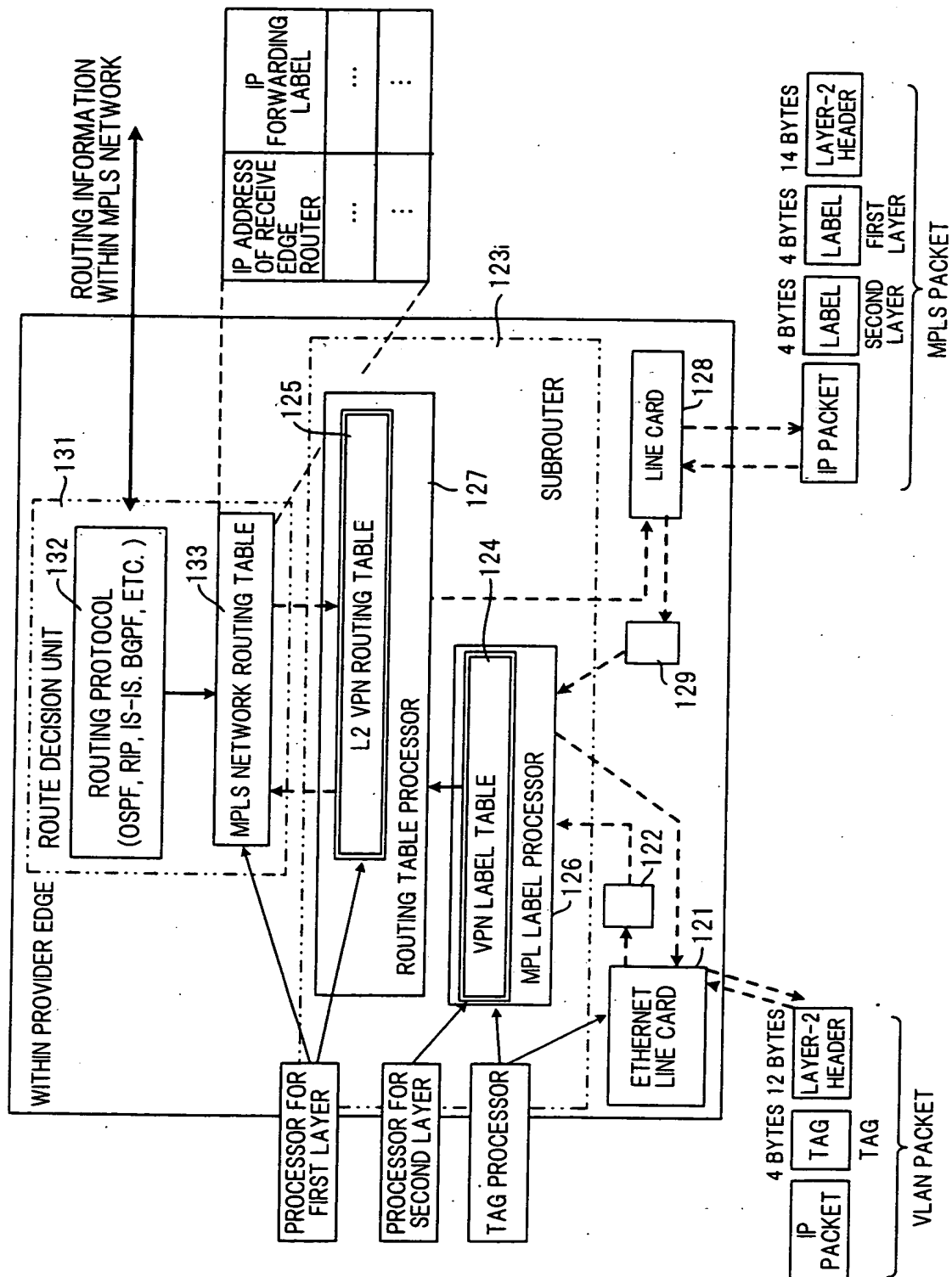
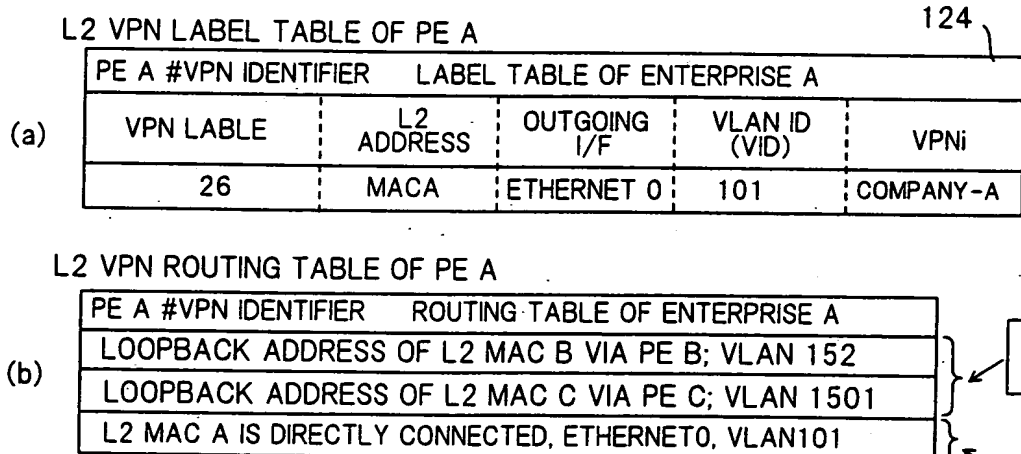
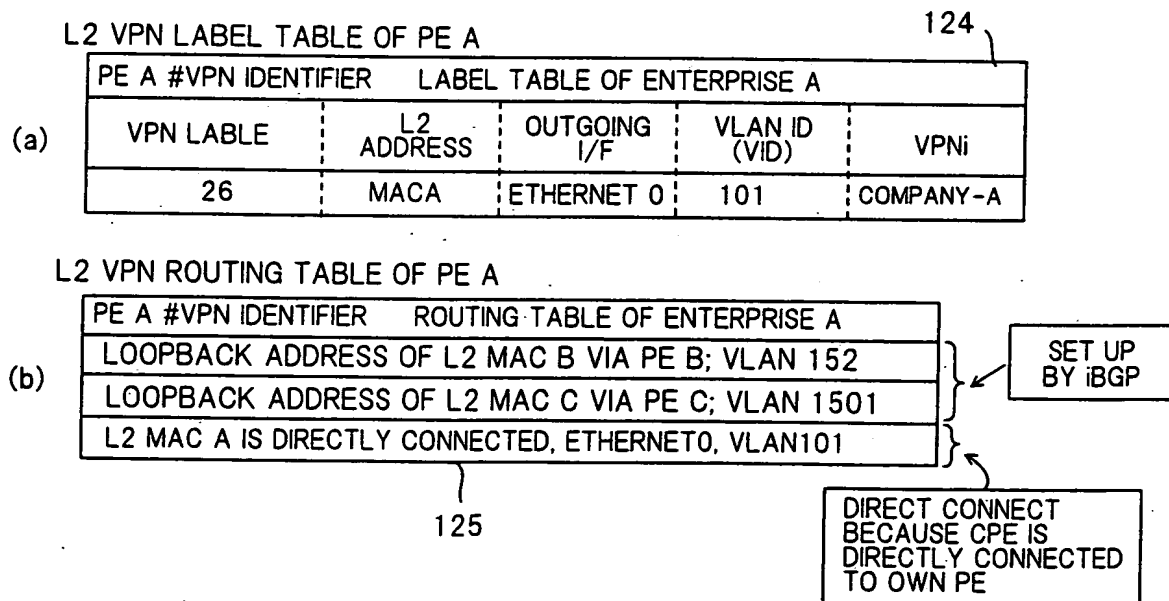


FIG. 9





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FIG. 11A

VPN TABLE OF ENTERPRISE A IN PE A

L2 VPN LABEL TABLE OF ENTERPRISE A				
VPN LABLE	OUTGOING I/F	MAC	VID	VPNi
26	ETHERNET	MAC A	101	COMPANY A
L2 VPN ROUTING TABLE OF ENTERPRISE A				
L2	MAC B	LOOPBACK ADDRESS OF PE B; VIAN 152		
L2	MAC C	LOOPBACK ADDRESS OF PE C; VLAN 1501		
L2	MAC A	DIRECTLY CONNECTED, ETHERNET, VLAN101		

FIG. 11B

VPN TABLE OF ENTERPRISE B IN PE B

L2 VPN LABEL TABLE OF ENTERPRISE A				
VPN LABLE	OUTGOING I/F	MAC	VID	VPNi
26	ETHERNET	MAC B	152	COMPANY A
L2 VPN TABLE OF ENTERPRISE A				
L2	MAC B	DIRECTLY CONNECTED, ETHERNET, VLAN 152		
L2	MAC C	LOOPBACK ADDRESS OF PE C; VLAN 1501		
L2	MAC A	LOOPBACK ADDRESS OF PE A; VLAN101		

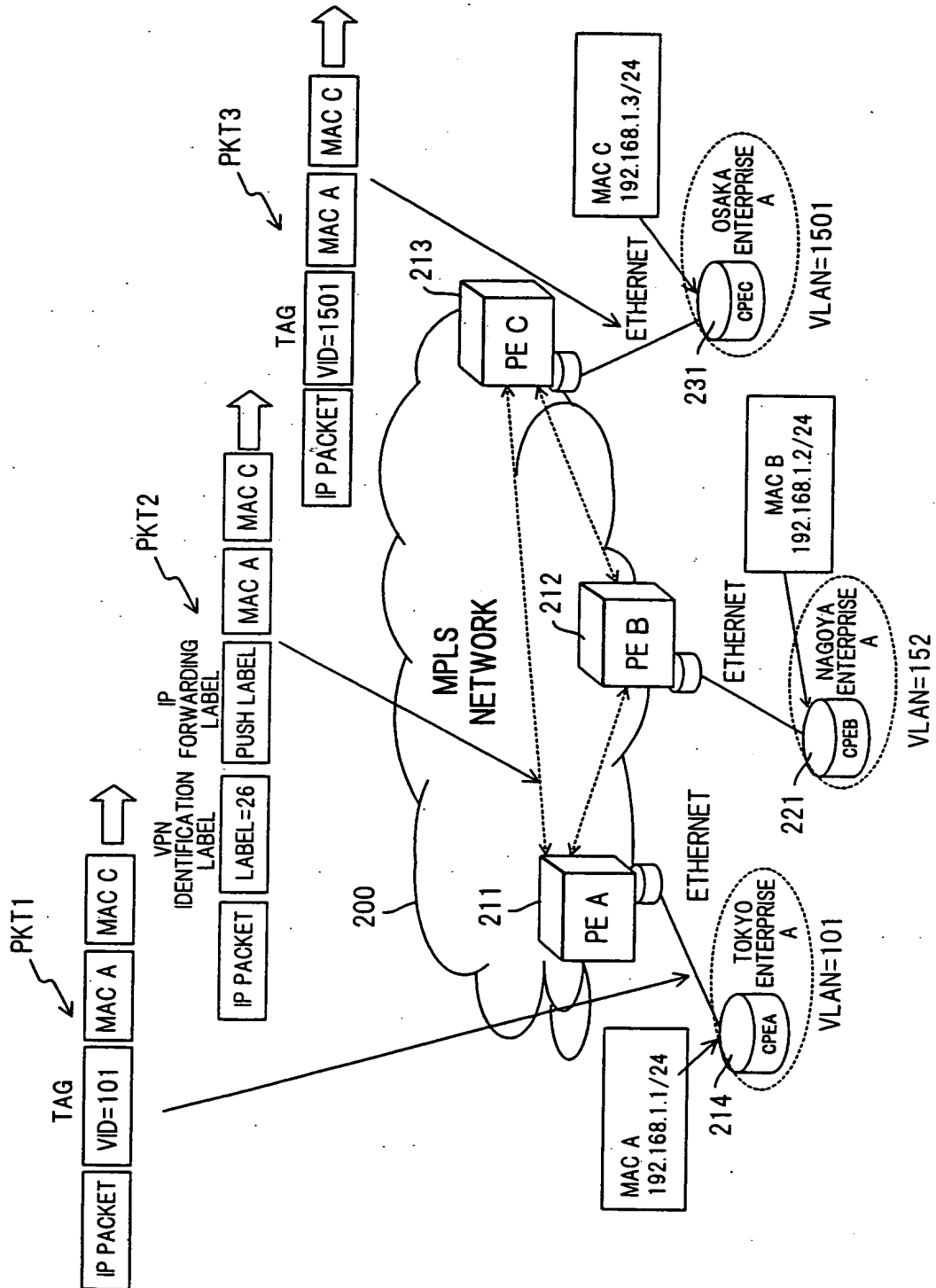
FIG. 11C

VPN TABLE OF ENTERPRISE C IN PE C

L2 VPN LABEL TABLE OF ENTERPRISE A				
VPN LABLE	OUTGOING I/F	MAC	VID	VPNi
26	ETHERNET	MAC C	1501	COMPANY A
L2 VPN LABEL TABLE OF ENTERPRISE A				
L2	MAC B	LOOPBACK ADDRESS OF PE B; VLAN152		
L2	MAC C	DIRECTLY CONNECTED, ETHERNET, VLAN1501		
L2	MAC A	LOOPBACK ADDRESS OF PE A; VLAN101		

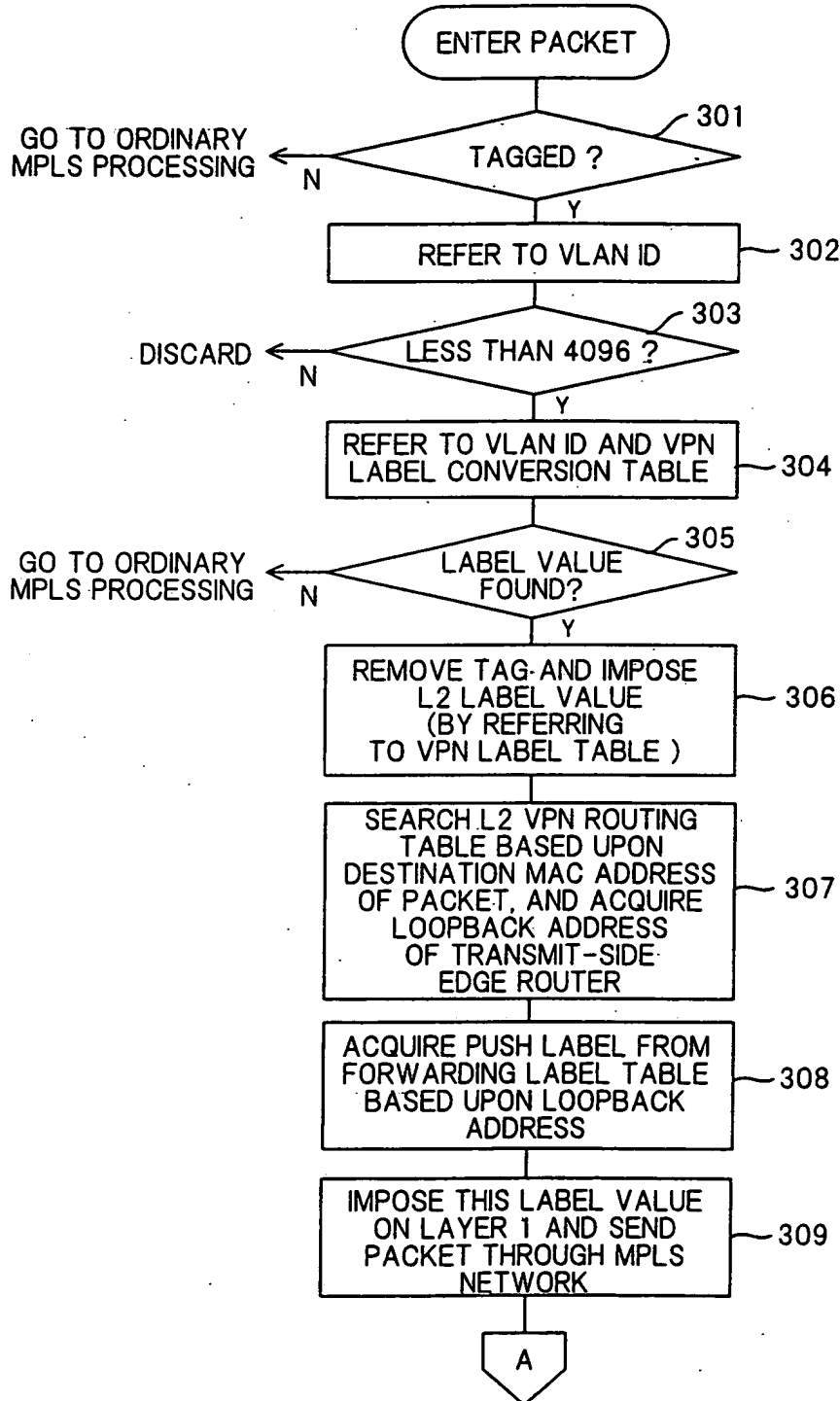
FIG. 11A

FIG. 12



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FIG. 13



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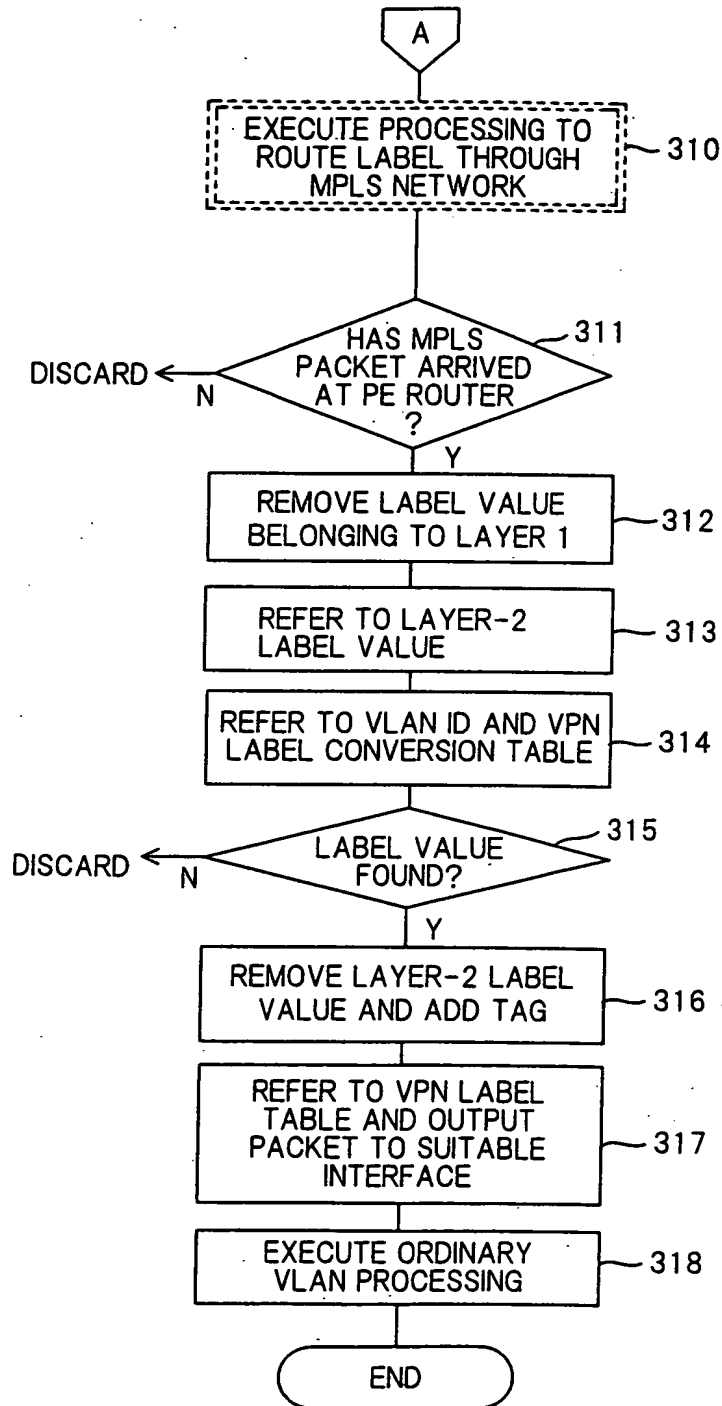
FIG. 14

FIG. 15A

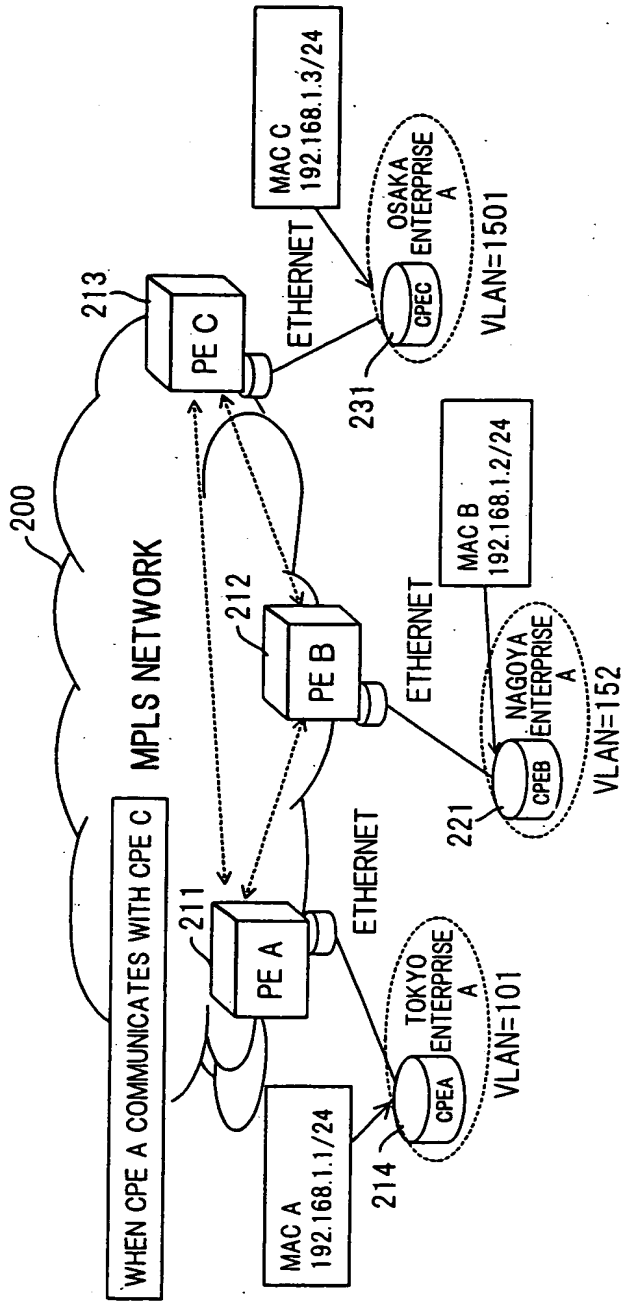
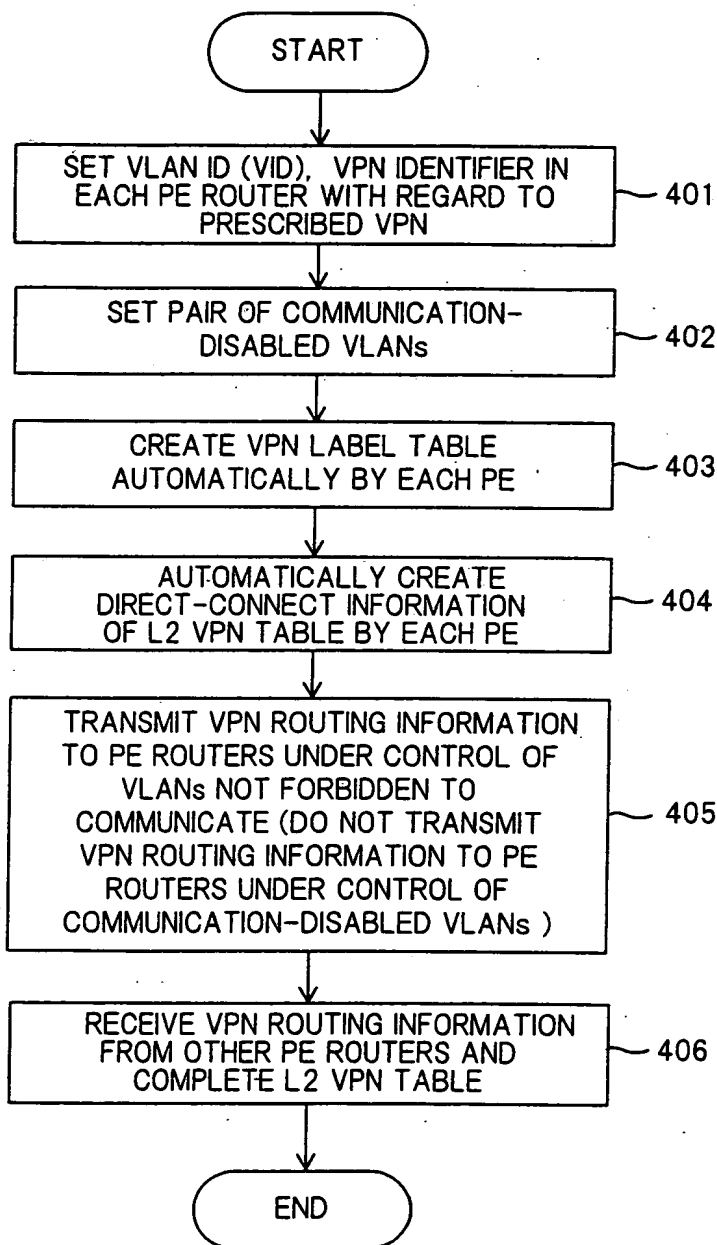


FIG. 15B

1.	BROADCAST ARP PACKET DIRECTED TO CPE C (192.168.1.3) FROM CPE A
2.	IN CASE OF BROADCAST DIRECTED TO CPE C (192.168.1.3) FROM CPE A, CREATE COPY OF BROADCAST PACKET AT PE A AS NECESSARY AND SEND PACKET TO PE B, PE C
3.	SEND ARP-REPLY PACKET TO CPE A (192.168.1.1) FROM CPE C AUTOMATICALLY LEARN OR ENTER MAC ADDRESS OF EACH CPE IN L2 VPN LABLE TABLE, L2 VPN TABLE OF EACH PE

FIG. 16



6 BYTES MAC DA	6 BYTES MAC SA	4 BYTES TAG	2 BYTES TYPE	IP, TCP, DATA, ...
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USER PRIORITY

TYPE VALUE OF TAG. PROTOCOL (8100 AT TAGGING TIME)	(3 BITS)	VLAN IDENTIFIER (VID)	LENGTH	RIF
---	----------	--------------------------	--------	-----

LABEL				EXP (3 BITS)	S	TTL
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6 BYTES MAC DA	6 BYTES MAC SA	2 BYTES TYPE	4 BYTES LABEL	IP, TCP, DATA, ...
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FIG. 18 PRIOR ART

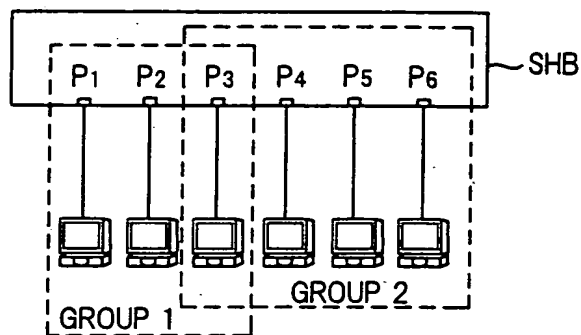


FIG. 19 PRIOR ART

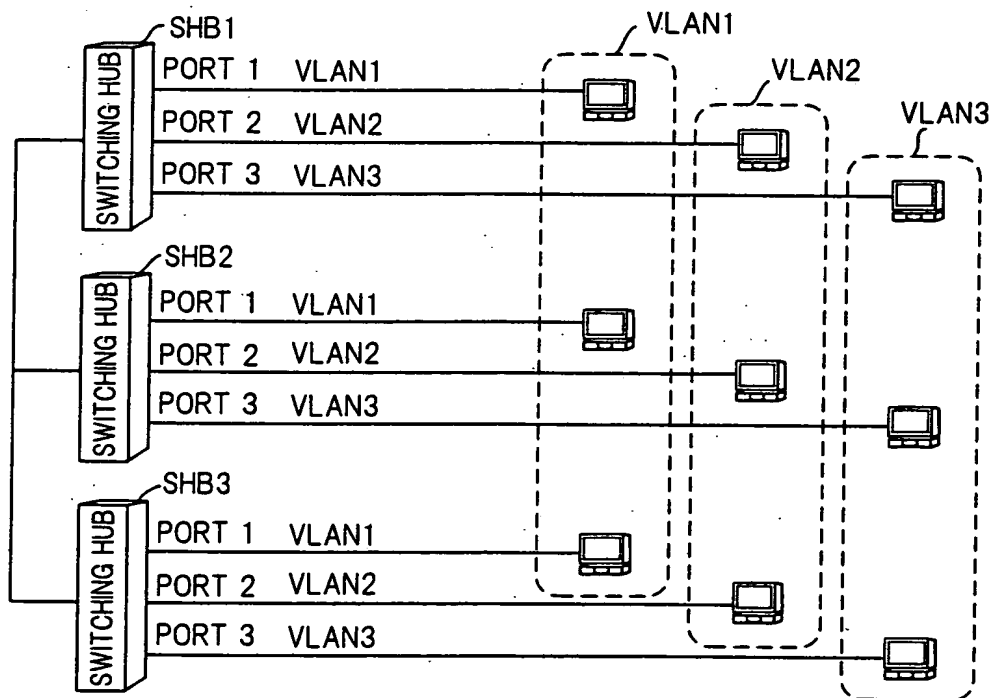


FIG. 20 PRIOR ART

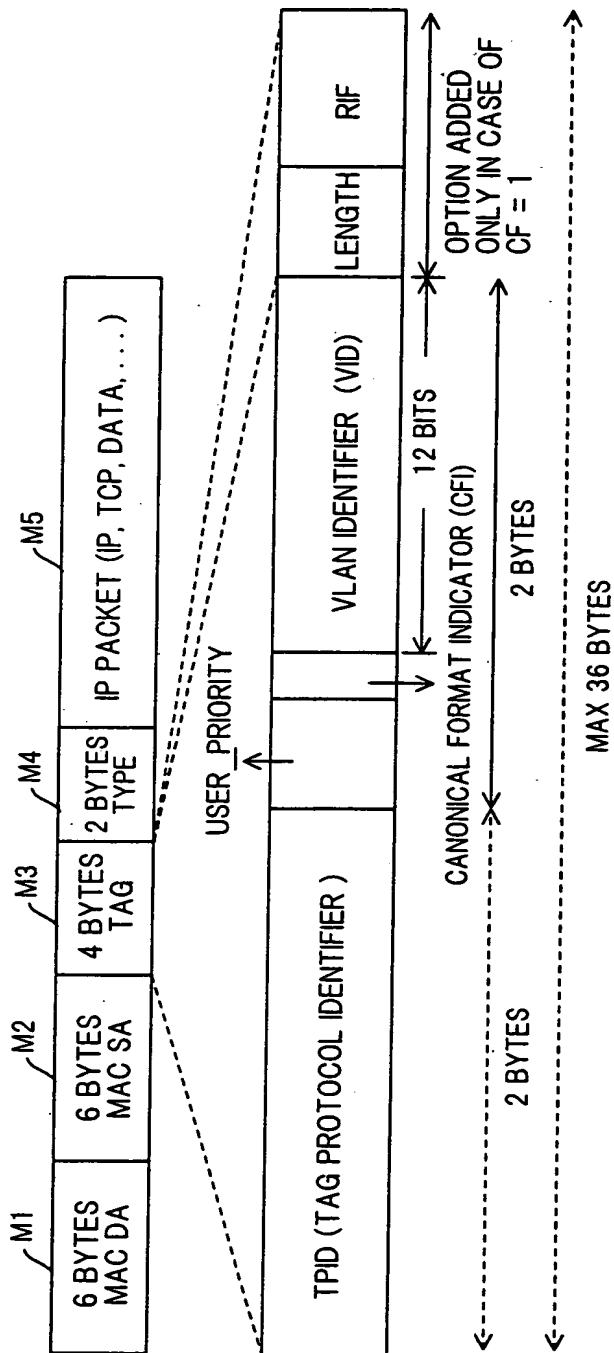


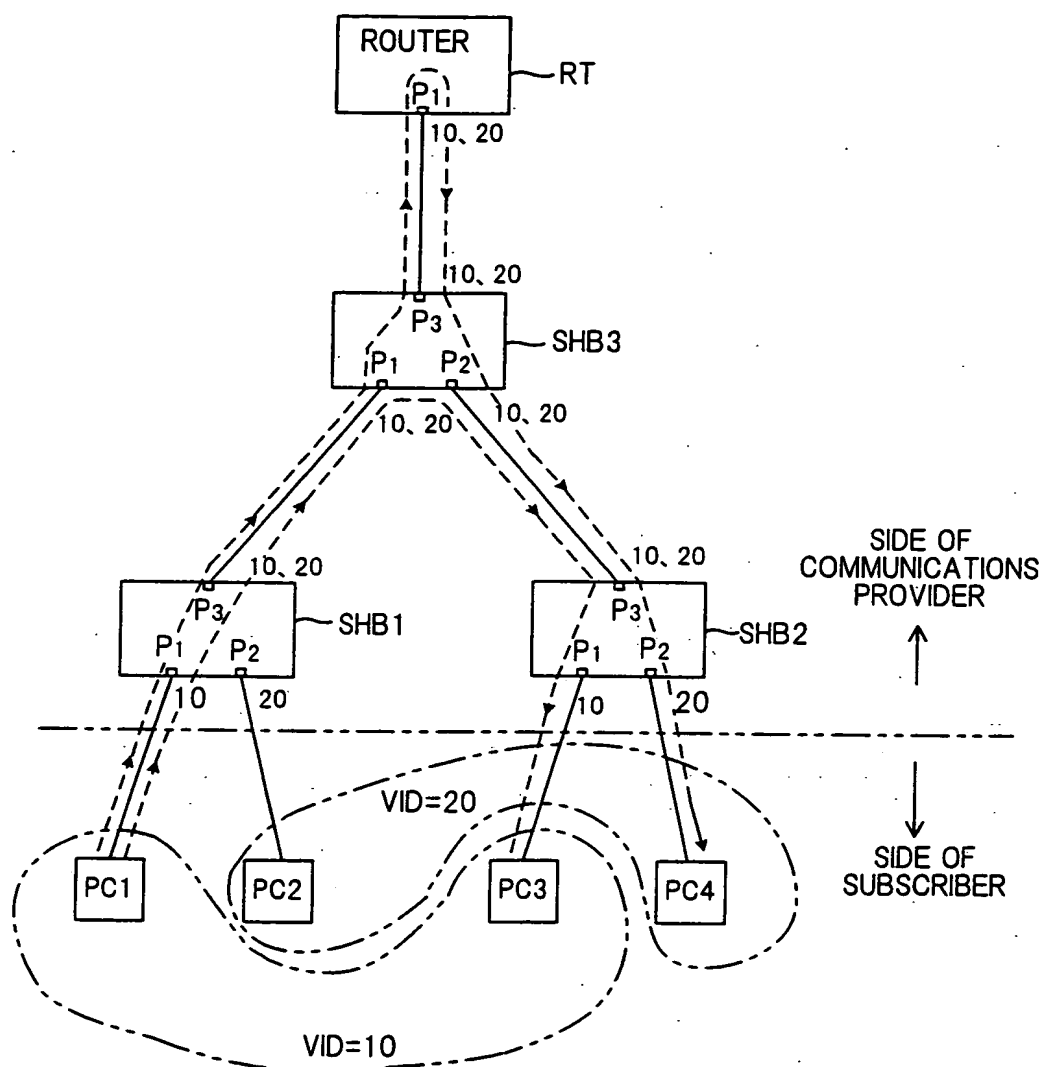
FIG. 21 PRIOR ART

FIG. 22 PRIOR ART

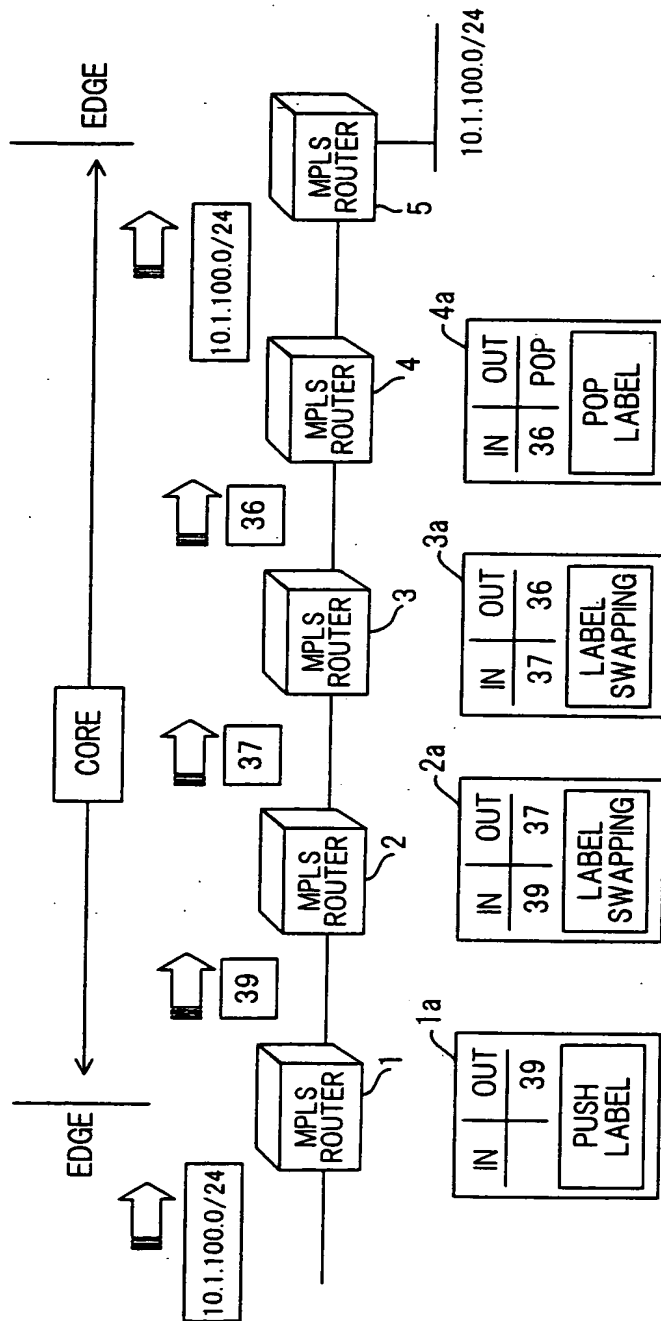


FIG. 23 PRIOR ART

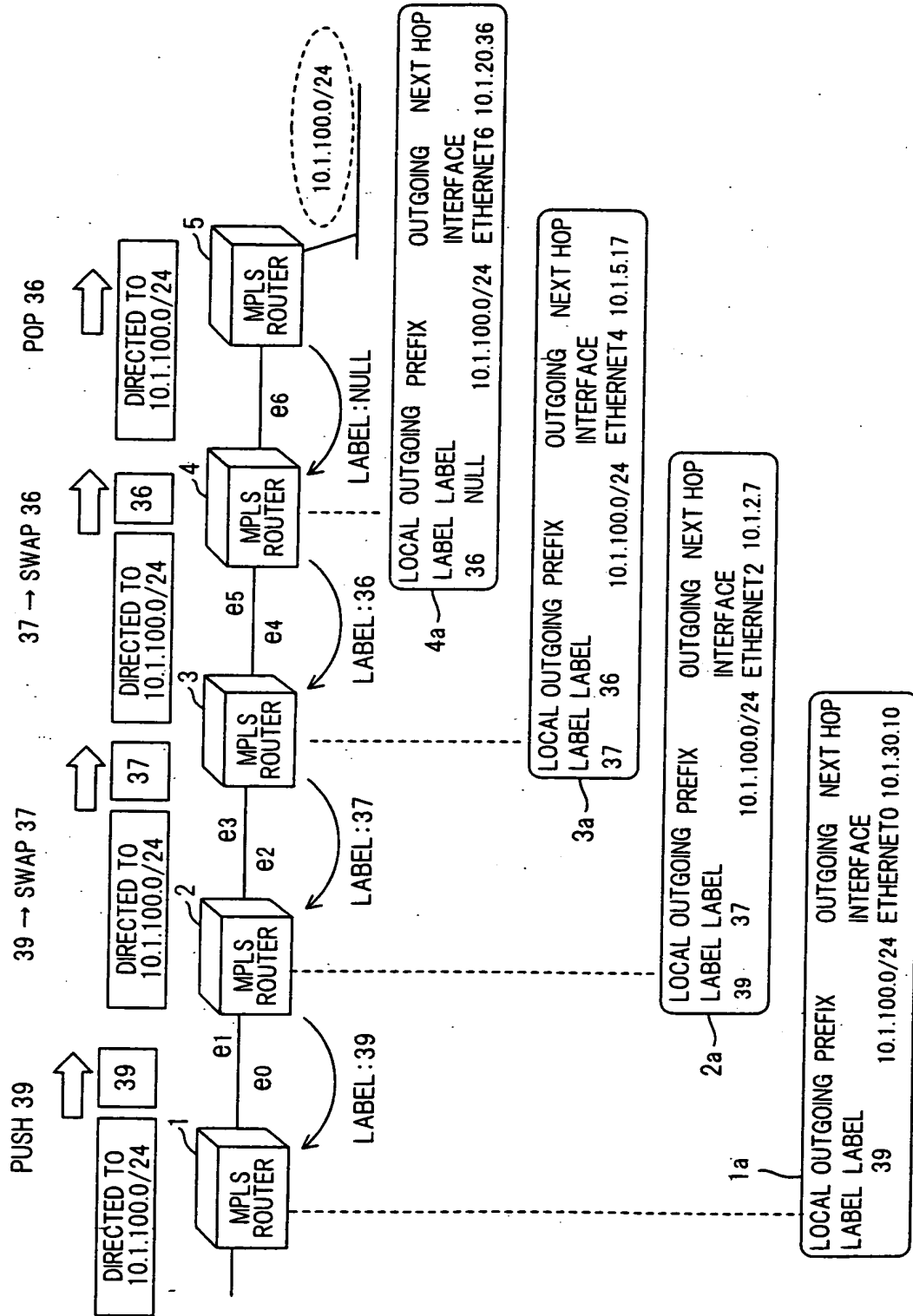


FIG. 24 PRIOR ART

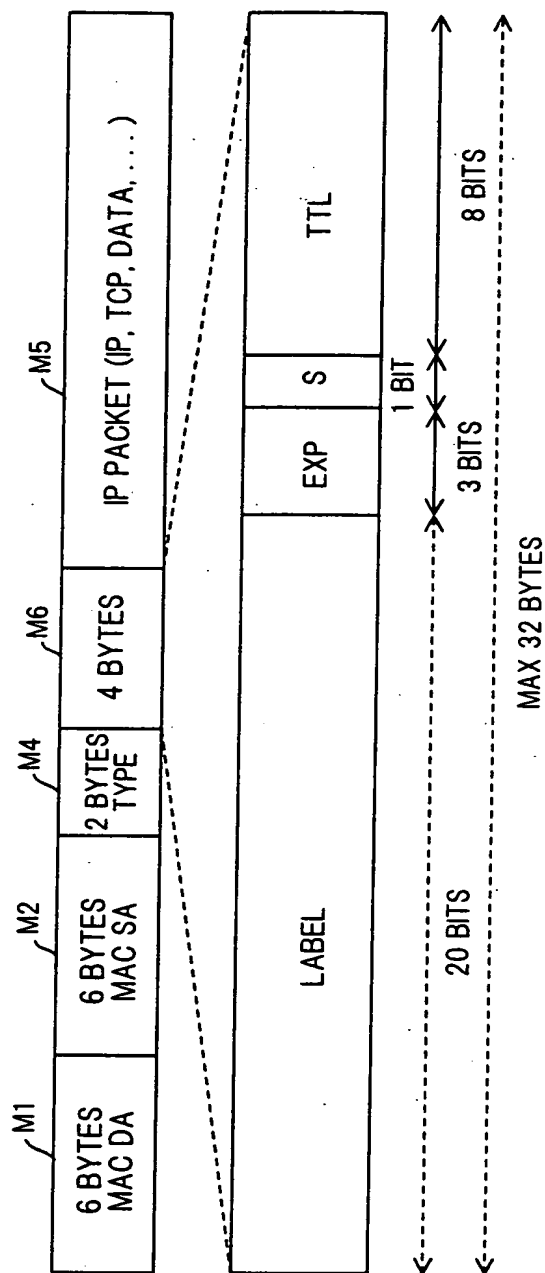


FIG. 25 PRIOR ART

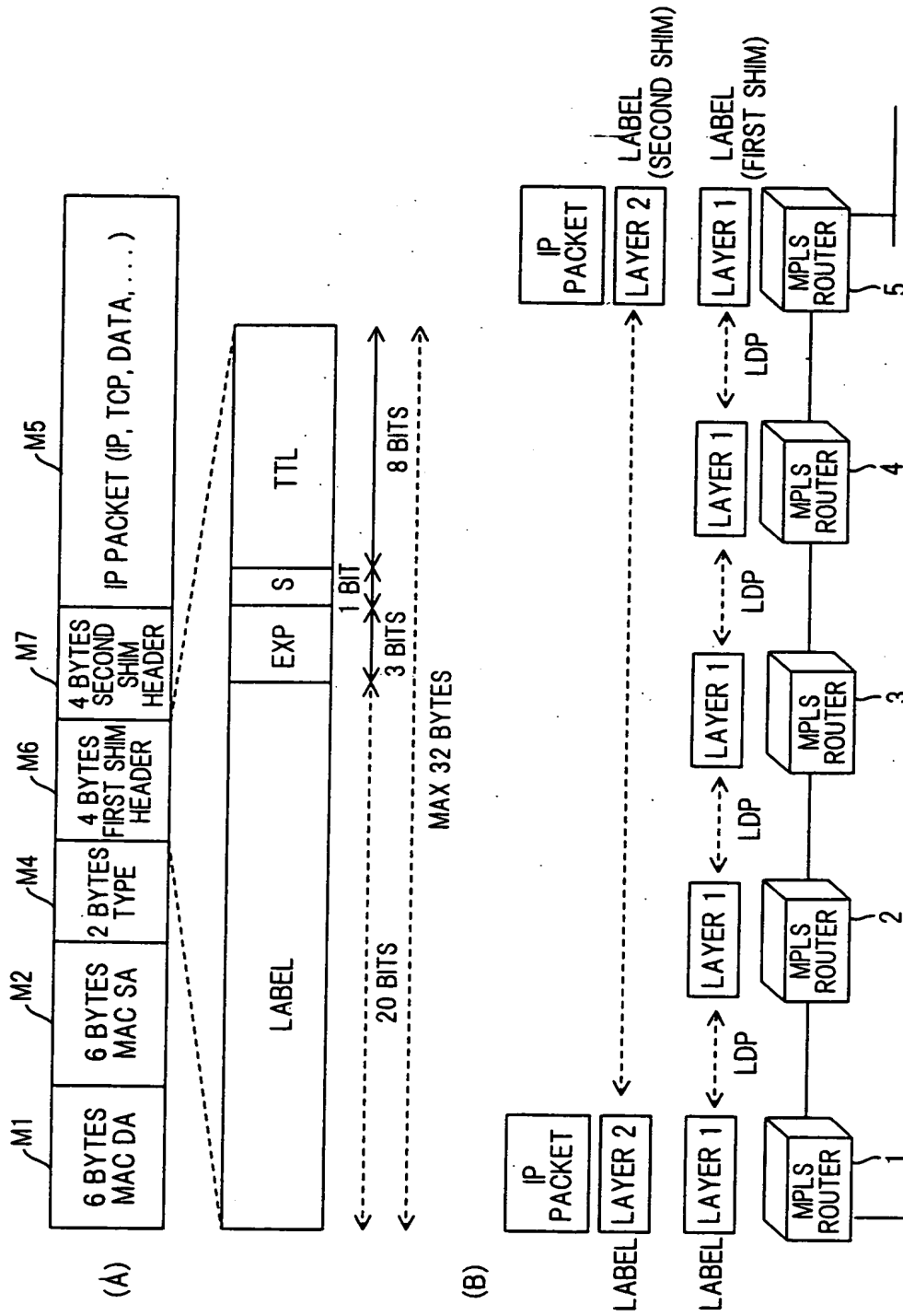


FIG. 26 PRIOR ART

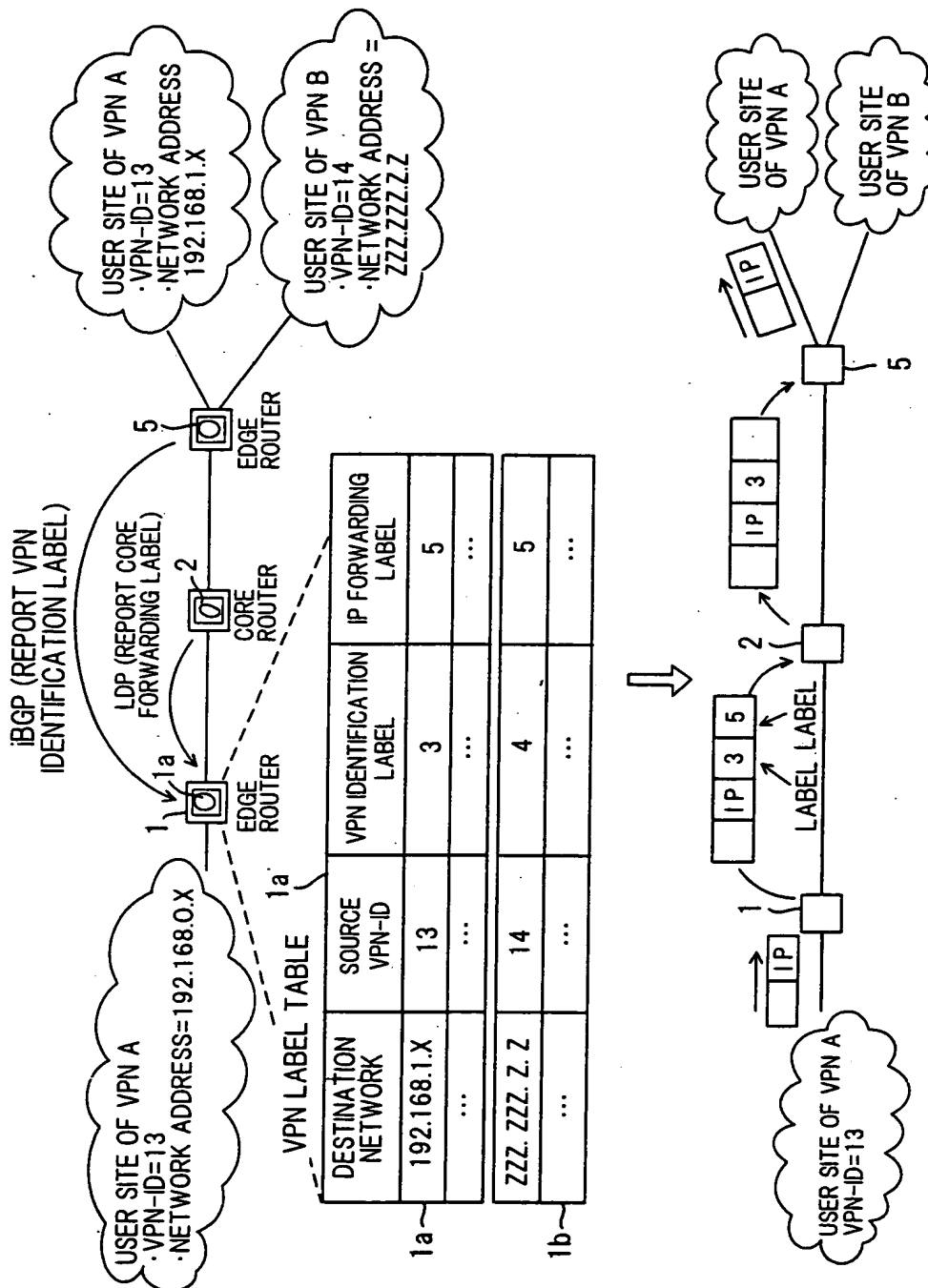


FIG. 27 PRIOR ART

